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## Low Profile, High Current Dual Inductors



### ADDITIONAL RESOURCES



Design Tools

### **STANDARD ELECTRICAL SPECIFICATIONS**

L <sub>0</sub> INDUCTANCE ± 20 % AT 100 kHz, 0.25 V, 0 A (μH)	DCR TYP.	DCR MAX. 25 °C (mΩ)	HEAT RATING CURRENT DC TYP. (A) <sup>(1)</sup>	SATURATION CURRENT DC TYP. (A) <sup>(2)</sup>	SRF TYP. (MHz)
10	30.5	32.6	5.6	7.4	10.2
15	43.5	45.5	4.6	5.5	9.5
22	67.8	72.5	4.1	4.1	7
33	100	107.0	3.8	3.7	6

#### Notes

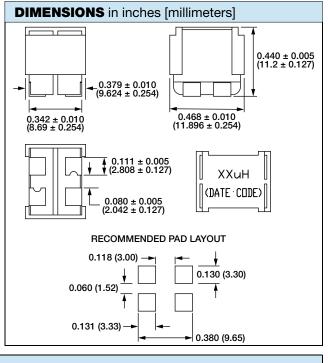
- All test data is referenced to 25 °C ambient Operating temperature range -55 °C to +155 °C
- The part temperature (ambient + temp. rise) should not exceed 155 °C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application
- Rated operating voltage (across inductor) = 50 V DC current (A) that will cause an approximate  $\Delta T$  of 40 °C (1)
- $^{(2)}$  DC current (A) that will cause  $L_0$  to drop approximately 20 %

### **FEATURES**

- Two inductors in one package
- High temperature, up to 155 °C
- Shielded construction
- Optimal design realizes high quality sound and low distortion
- Low coupling for minimal cross-talk between inductors
- Frequency range up to 1 MHz
- Lowest DCR/µH, in this package size
- · Handles high transient current spikes without saturation
- Ultra-low buzz noise, due to composite construction
- AEC-Q200 gualified
- IHLP design. PATENT(S): <u>www.vishay.com/patents</u>
- · Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

#### **APPLICATIONS**

Class D audio amplifiers



DESCRIPTION						
IHLD-4032KB-5A	22 µH	<b>± 20</b> %	ER	e3		
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC <sup>®</sup> LEAD (Pb)-FREE STANDARD		
GLOBAL PART NUMBER						
I H L	D 4 0	3 2 K B	E R 2	2 0 M 5 A		
PRODUCT FAN	AILY	SIZE	PACKAGE IN CODE	IDUCTANCE TOL. SERIES VALUE		
PATENT(S): www.vishay.com/patents						

This Vishay product is protected by one or more United States and international patents.

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Document Number: 34381

RoHS

COMPLIANT

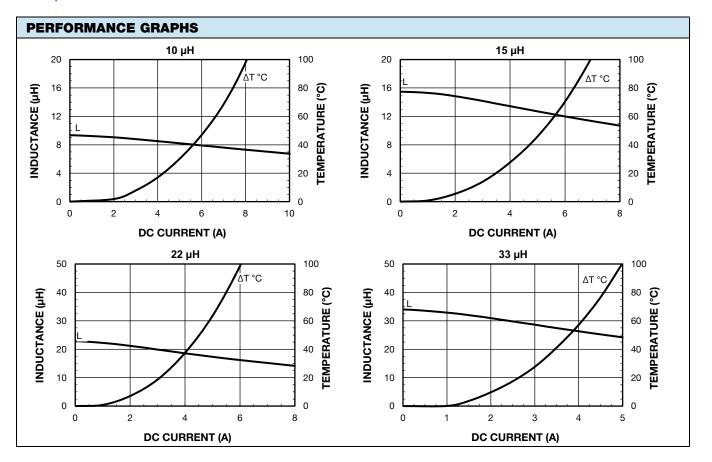
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<sup>1</sup> 

# IHLD-4032KB-5A



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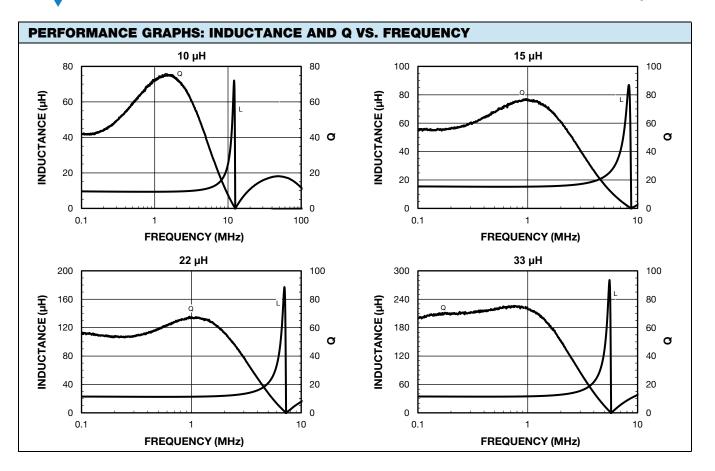
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### IHLD-4032KB-5A



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### **INTERACTIVE 3D MODEL**

- If the below 3D content is not displayed in the PDF, please make sure you are using Adobe Acrobat Reader
- To enable the 3D content, go to "Options" in the yellow popup bar and click on "Trust this document one time only". Click then on the "?" box and the rotating part will be shown.
- For a long term solution, you can also do following:
  - Go to "Edit"  $\rightarrow$  "Preferences"  $\rightarrow$  "3D & Multimedia"  $\rightarrow$  and mark "Enable playing of 3D content"  $\rightarrow$  confirm with "OK"

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